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# Women's economic resources and bargaining in marriage: Does Egyptian women's status depend on earnings or marriage payments?

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Poverty, Job Quality and Labor Market Dynamics



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## Abstract

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Although research in the Middle East and elsewhere shows that women's work is associated with greater gender equality in the household, the mechanisms by which work and earnings affect women's status are poorly understood. This study uses Egyptian survey data to determine whether the effect of women's work on their status is mediated by the material transactions that accompany marriage. Previous research on this topic has identified two important paradoxes. First, Egyptian brides' contributions to marriage expenses have increased as their earning potential has risen. This contradicts the *labor-value* perspective, which posits that resources will flow from bride to groom so long as women are economically dependent on men. The second paradox is that women's work has not resulted in new entitlements for women as *modernization* narratives would predict. Instead single women work intensively to accumulate the savings necessary to secure a good marriage, retire from the labor market, and claim the privileged status of housewife. Neither paradox has been assessed using national data that allows other variables to be taken into account. Here I do so while adding a third perspective, the *bargaining* perspective. This perspective posits that marriage payments made to the bride, as well as assets she herself brings to the marriage, enhance her bargaining position. Women's employment and earnings after marriage should have the same effect according to this perspective. Analysis of the 2006 Egypt Labor Market Panel Survey panel data is used to test each of the three perspectives and to explore the associations between women's labor market activity, earnings, absolute and proportional marriage payments, and a measure of women's status within marriage, namely their decision-making power. Consistent with the existing literature, I find that the *labor-value* and *modernization* perspectives are refuted by the ELMPS data. The *bargaining* perspective is only partially supported by the data, and I consider some of the social and legal barriers to the operation of the *bargaining* model in the final section of the paper.

## 1. Introduction

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Scholars have long held that women's labor market participation fosters greater gender equality at the household level in the short run, and at the societal level in the long run. This is true of research

concerning developed and developing countries alike, and the Middle East is no exception (Papps 1992). Women's employment and earnings are reported to include benefits such as greater outlays on children's welfare (Hadinot and Haddad 1995; Namoro and Roushdy 2008), as well as greater autonomy for women themselves (Kabeer 1997; Kavar 1995; Nawar, Lloyd and Ibrahim 1995). In spite of these findings, few of the mechanisms by which women's work influences outcomes related to gender equality in the Middle East have been adequately accounted for. Nor do we adequately understand the conditions under which the reported associations hold. As a result, policymakers seeking to improve women's status cannot be certain whether their interventions, be they providing economic incentives or altering cultural attitudes, will be effective. This study seeks to contribute to the existing literature by exploring the pathways linking women's work and material resources to gender dynamics between husbands and wives in Egypt. The material resources in question consist primarily of the cash and assets women purchased or were given at the time of marriage.

For single young men and women entering marriage in Egypt, the new relationships they are establishing with future partners and their families are marked by a variety of economic transactions. Articles of clothing, jewelry, cash and real estate all change hands at well-defined junctures in the transition from singlehood to marriage. In addition, a number of purchases are made in anticipation of joint use in the conjugal home. Such household items range from decorative baubles to major appliances and furniture. Some of these transactions are gifts, albeit socially prescribed gifts. Others are legally sanctioned entitlements. All of the resources exchanged, however, require considerable outlays. In most cases brides, grooms and their families must save for years if they are to afford a marriage that conforms to prevailing notions of respectability. The families of young women plan especially carefully for future marriage expenses to avoid the social stigma associated with women's adult singlehood.

Marriage payments are crucial to our understanding of women's work and gender equality for at least four reasons. First, mounting evidence from Egypt suggests that a major motivation driving single women's pursuit of wage work is the need to finance their own marriages (Amin and Al-Bassusi 2004). If single women use marriages as a justification for working outside the home, it may help explain low rates of employment among women after they have married. Second, the emerging norm of female contributions to marriage payments requires that young women devote several years to wage work before they marry. Some have argued that if women wish to marry at the appropriate age, they may trade off years of schooling in order to maximize time in the work force, thus



endangering recent gains in female educational attainment (Amin and Al-Bassusi 2004). Third, it appears that women's proportional contributions to overall marriage costs have increased over time (Singerman and Ibrahim 2003). The institution of marriage and the respective financial obligations of bride and groom in household formation are clearly changing, and it may be that women's labor market opportunities are behind those changes. Finally, other research has shown that married women derive power from the assets they purchased or were given at marriage (El-Kholy 2000). This indicates that the association between women's work and later well-being reported elsewhere may be mediated, in part, by marriage payments.

A small but growing body of research exists on women's work and marriage transactions in Egypt. If read through the lens of theories developed in other countries, two important paradoxes can be gleaned from this literature. First, Egyptian brides' contributions to marriage expenses appear to have risen over time, rather than dropping alongside their growing earning potential (Singerman and Ibrahim 2003). This contradicts the *labor-value* perspective of marriage payments, which posits that resources will flow from bride to groom so long as women are perceived to be an economic burden on their husbands. The second paradox is that the rising prevalence of women's work has not resulted in new entitlements for women in the home and beyond as *modernization* narratives would predict. Instead it appears to be a tactic used by women to ensure a favorable position in the existing patriarchal model of marriage – single women work intensively to accumulate the savings necessary to secure a good marriage and claim the coveted status of housewife (Amin and Al Bassusi 2004).

Both paradoxes, however, are in need of further substantiation. While the first paradox has not been confirmed empirically, the second is based on a small-scale ethnographic study. In this paper I first aim to test the conceptual perspectives from which these paradoxes arise. I then add a third perspective borrowed from the field of family economics: the *bargaining* perspective of marriage. This perspective posits that marriage payments which remain the bride's property, as well as assets she herself brings to the marriage, enhance her bargaining position. Women's earnings after marriage should have the same effect according to the *bargaining* perspective. I evaluate this perspective by looking at the association between women's work, marriage payments, and a measure of women's status - women's household decision-making. Data from the 2006 Egypt Labor Market Panel Survey (ELMPS) are used to carry out multivariate analyses of the relationships between these factors, an approach that has

been absent from previous work. In addition to containing panel data, the ELMPS elicited detailed information on employment, earnings, and marriage payments.

In the following sections of this paper I first describe existing research on marriage transactions in Egypt. I then touch on conceptual frameworks for their interpretation and derive hypotheses to test. Next, I introduce the ELMPS 2006 along with the measures to be employed in this study. I proceed to test hypotheses arising from the three conceptual frameworks laid out in the literature review, concluding with a discussion of my results.

## 2. Background and Review of the Literature

Customs that prevail across Arab communities of the Middle East dictate that the groom and his natal family bear the majority of the expenses associated with a new marital union. This usually entails costs associated with the wedding ceremony and celebration, the purchase and/or preparation of the conjugal home, a wedding ring or other jewelry (*shabka*), and, for Muslims, a sum of money paid as bride-price (*mahr*). The bride also may pay for the engagement, and she may bring limited goods such as clothing (*kiswa*), and certain items of furniture, kitchenware, and linens (collectively, *gihaz*) into the union.

To date, the most thorough investigation of marriage transactions in Egypt is that of Singerman and Ibrahim (2003). In a comprehensive exploration employing data from both the 1995 Demographic and Health Survey (DHS) and a 1999 International Food Policy Research Institute (IFPRI) survey (which was administered to 405 households with recent marriages), they show that the marriage of children is an important component of family savings and expenditures, and indeed of the national economy. Total marriage costs for couples who married in the years 1992-1997 were on average 11 times as great as a household's mean annual expenditure during those same years (Singerman and Ibrahim 2003).<sup>1</sup> In a later study based on the 2006 ELMPS Singerman (2007) revises these estimates downwards, stating that middle class grooms must save their entire earnings for an average of 2.4 years to cover the costs of marriage.

There is also a widespread perception in Egypt, apparent in literature, film and the media, that marriage is far more costly today than it was

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1 These costs encompass expenses borne by both the bride's and groom's sides, and are based on reports in the IFPRI data. For households above the poverty line, the average cost of marriage is 11 times annual household expenditures and for households below the poverty line, it is 12 times.

in the past. The move towards nuclear households, the urban housing crisis, tight labor market conditions, consumerism and higher expected standards of living are thought to have rendered marriage unaffordable for some, resulting in the postponement of marriage, which is especially pronounced for men (Mensch et al 2005). Singerman and Ibrahim's data corroborate the perception of rising costs of marriage. But while they report that there appears to be a slight dip in marriage expenditures only for the most recent marriages (Singerman and Ibrahim 2003), Singerman finds that marriage costs began to decline steadily from 1975 and plateaued around 1995 (Singerman 2007). Assaad and Ramadan (2008) show that the trend of rising age at first marriage among Egyptian men has abated recently, and attribute this to the easing of the housing crisis. According to Binzel and Assaad's (2008) analysis of men's marriage timing, securing a stable job in the formal sector, rather than obtaining a first job in a timely manner, is the key prerequisite for men's marriage.

Many lay and scholarly explanations of marriage timing focus on men's diminished labor market position. Men bear the majority of expenses associated with marriage in Egypt, but brides and grooms appear to be moving towards equal sharing of marriage costs over time (Singerman and Ibrahim 2003). Young women may have stepped in to compensate for men's inability to cover marriage expenses, and therefore it may not be the economic hardship of men alone that has impeded marriage once the norm of female contributions has been established. Few accounts have acknowledged that young women also contribute heavily to the economic prerequisites of marriage and that their labor market experiences shape marriage behavior, in spite of ethnographic evidence that single women often seek wage work in order to save for marriage. Given the strong social stigma associated with women's adult singlehood in Egypt, families plan carefully to ensure that their daughters make a suitable match at the appropriate age. The concern for marriage costs also influences young women's decisions regarding education and market work.

Drawing on in-depth interviews, Amin and Al-Bassusi (2004) claim that marriage is the main rationale for working cited by young single women. Earnings made in the years following their schooling allow young women to accumulate the material goods (*gihaz*) considered essential for marriage, which in turn makes them more attractive to potential suitors. Amin and Al-Bassusi (2004) report that the vast majority of single women interviewed planned to cease working upon marriage. They argue that traditional marriage values, with the role of the husband as that of breadwinner and the wife as dependent mother, have been reinforced as

women's employment opportunities have expanded (Amin and Al-Bassusi 2004).

A final source that discusses marriage transactions in Egypt is concerned with the ways in which women deploy their husbands' marriage payments to secure advantages within marriage. El-Kholy (2000) discusses the marriage inventory (*ayma*) and its centrality to the negotiation of conflict in a low-income Cairo neighborhood. The *ayma* itemizes the furniture and supplies brought to the marriage by the bride (it sometimes includes the *shabka* as well), assigns an inflated monetary value,<sup>2</sup> and is signed by the groom and two witnesses. The listed items can be claimed by the wife at certain times (in cases of abuse, expulsion from the home, or marriage to another wife) and in case of death of the husband or divorce. Although it is an informal contract, El-Kholy shows that it may be enforced by community arbitration or considered a legally-binding contract in divorce courts. The *ayma* demonstrates the value of the bride to the groom and others, but perhaps more importantly, it is a form of insurance against vulnerability in marriage. The latter is especially salient, according to El-Kholy, given rising costs of living, the growing role of female earnings, and the financial burden of divorce (El-Kholy 2000).

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### 3. Conceptual Framework and Hypotheses

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It is possible to gain more purchase on the observations gathered by previous research by examining the evidence from Egypt through the lens of existing conceptual frameworks. Researchers have sought to understand marriage transactions in several ways,<sup>3</sup> but I focus my attention in this analysis on three discrete perspectives that explicitly link women's work to marriage transactions: the *labor-value* perspective, the *modernization* perspective, and the *bargaining* perspective. Each of these draws from the international literature on marriage transactions or women's work<sup>4</sup> but has particular relevance for Egypt, given what evidence exists at present. In what follows, I explore their utility for the Egyptian case.

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2 The items included in the *ayma* and their value are the subject of negotiations between the families of the bride and groom around the time of engagement.

3 See for example Sclegel and Eloul (1988), Bhat and Halli (1999), Goody (1973), Zhang and Chang (1999), Suran et al. (2004), and Goode (1959).

4 Singerman and Ibrahim note that their finding of rising female marriage payments runs counter to expectations (2003: 86), given that it coincides with a period of growing female labor force participation in Egypt, but they do not link this to the theory of female labor-value or to modernization theory. Amin and Al Bassusi on the other hand, do make the conceptual link between their findings and modernization theory (2004: 1297).

The first of the interpretive lenses is the *labor-value* perspective. This perspective was first advanced by Boserup (1970). In her study of women's status in Africa and Asia, Boserup argued that the organization of production drives marriage practices and the direction of resource flows at marriage in a particular community. In settings where women assume productive economic roles and are perceived to be important assets to the household economy, bride-price prevails because grooms must compensate the bride's family for the loss of her labor. If women are economically dependent, however, dowry will be given by her family to her husband since he is taking on a burden (Boserup 1970). If we are to accept the *labor-value* perspective's basic premises, it would appear that the Egyptian case presents a curious paradox. Egyptian women have participated in the wage labor market in rising numbers over the last several decades, and as a result their earnings have also increased relative to men's.<sup>5</sup> We would expect their contribution to marriage expenses to diminish alongside their growing labor value, but instead women's contributions to the marriage fund appear to have grown (Singerman and Ibrahim 2003).

The second conceptual perspective is the *modernization* perspective, which reveals a second paradox in the Egyptian case. *Modernization* accounts of social and economic development would predict that growing labor force participation by women comes hand in hand with greater rights and privileges in private and public arenas. However, the patriarchal family model appears remarkably resilient, and it strongly influences how and for how long women choose to engage in the labor market. As a result, women's work opportunities may in fact lead to outcomes opposite to those predicted by the *modernization* narrative. We know from Amin and Al-Bassusi that some single women work expressly for the purpose of purchasing items for their *gihaz*, discontinuing their education so that they may marry early in their twenties. Their earnings ensure that these women can afford to begin childbearing early on, having left the labor force permanently once married (Amin and Al-Bassusi 2004).

A third conceptual perspective is the *bargaining* perspective. This perspective is implicit to the work of El-Kholy, and to some extent Amin and Al-Bassusi's, but I expand upon it here. According to the field of family economics from which the perspective originated, power flows from bringing resources to a relationship. A spouse can use economically-based bargaining power (for instance income, property, or occupational status) to secure advantages within the relationship (England and Folbre 2005). There is an assumption that bargaining in marriage occurs under the

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5 The last decade may be an important exception to this overall pattern. See Amer 2008.

shadow of various threats. Economic resources<sup>6</sup> affect what sociologists call women's threat point. Women's external threat point consists of what they have to fall back on if their marriage were dissolved. This can include women's own income and savings, other sources of economic support such as fathers and brothers, as well as their prospects for remarriage. In the Egyptian case, the external threat point may consist also of their very ability to end the marriage,<sup>7</sup> and their ability to reclaim items from the *ayma* from their husbands, or to extract a deferred dowry (*muakhar sadaq*).<sup>8</sup> Internal threat points consist of the things women can withhold within the marriage (failing to share income for example) and what that leaves the spouse to fall back on (Brines 1994; Bittman et al. 2003).

The *bargaining* perspective suggests a number of ways in which marriage payments by both the bride and the groom enhance women's bargaining position in marriage, deterring divorce and ill-treatment. If the bride's contributions to the marriage fund are documented in an *ayma*, if she has received goods from her husband which remain her property (customarily the *shabka* gold and *mahr* bride-price are considered the bride's, as well as all the household furniture), and if the groom has specified a *muakhar*, she can leave the marriage with some resources, which her husband would lose. This perspective would also predict that by working either before or after marriage, a woman's dependence on her husband is reduced and her bargaining position within marriage is improved. Note, however that the pathway leading from women's work to status in the family differs somewhat from the *modernization* narrative. Under the *bargaining* perspective, working may confer advantages on women because it directly increases their influence, but it may also operate indirectly if working

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6 There are of course non-economic sources of bargaining power. These may include any factor that confers status on women (prestigious family background or beauty). It may also include anything that facilitates exit for women (emotionally or financially supportive family members - male siblings may be especially important in this regard) or makes exit from marriage detrimental for the husband (dependence on her for care or domestic work, or financial penalties for divorce). In fact one of the key shortcomings of the bargaining model is its neglect of the importance of third parties outside the married couple. (For accounts detailing their role in women's lives see Hoodfar (1997), and Joseph (1999)) Unfortunately, many of these non-economic factors are not available as variables in the ELMPS data.

7 The Coptic Church, to which most Egyptian Christians belong, forbids divorce in all but a few exceptional circumstances. Although civil divorce is an option for Coptic women, the divorce may not be recognized by the Church or it may result in excommunication. For Muslims, divorce can be initiated by the husband quite easily. Women wishing to divorce, on the other hand, must undergo lengthy court procedures, although these have been streamlined somewhat since the passage of a new Family Status Law in 2000.

8 The *muakhar* is a sum of money to which all Muslim wives are entitled upon divorce. Its value must be stipulated in the marriage contract, although a small symbolic sum is sometimes written into the contract as a sign of good will.

before marriage allows women to bring more resources to the marriage fund at the outset. Another important caveat is that the *bargaining* perspective has largely been tested in Western settings such as the US and Australia. The deal struck between men and women in these settings, or the ‘patriarchal pact’ to paraphrase Kandiyoti (1991) is predicated on certain social and economic conditions. The question remains whether the *bargaining* perspective’s predictions will hold in a different setting, that of Egyptian society. Based on the conceptual perspectives described above, the hypotheses to be examined can be summarized as follows:

#### *Labor-Value Hypothesis*

1. As the remuneration of women’s work before marriage increases, their *proportional* contributions to marriage costs will decrease.
2. As the remuneration of women’s work before marriage increases, the *absolute* value of their marriage payments will decrease.

#### *Modernization Hypothesis<sup>9</sup>*

1. As the remuneration of women’s work before marriage increases, their decision-making within marriage will also increase.
2. As the remuneration of women’s work after marriage increases, their decision-making within marriage will also increase.
3. As women’s educational attainment increases, their decision-making within marriage will also increase.

#### *Bargaining Hypothesis*

1. Women’s proportional and absolute contributions to marriage costs will be positively associated with their decision-making within marriage.
2. The associations posited by the modernization hypothesis above will disappear once the wife’s contribution to the marriage fund is taken into account.

These three perspectives are interrelated in a number of ways. The *labor-value* hypothesis attempts to arrive at the determinants of women’s marriage expenditures, which are the key predictors for the *bargaining* hypothesis. The *bargaining* and *modernization* hypotheses share in common a number of predictions regarding the positive effect of women’s work and earnings on their decision-making. However, as noted above, the two perspectives also compete with one another since the *bargaining*

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9 These predictions are also consistent with the bargaining perspective.



perspective posits that the advantages women gain by working before marriage are actually due to the marriage payments that working allows them to afford.

## 4. Data and Measures

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Limited though it is, the evidence on marriage transactions in Egypt<sup>10</sup> raises a myriad of questions for further investigation. Singerman and Ibrahim (2003) do not test the association between women's work and marriage transactions, and their descriptive findings are constrained by the small size of the IFPRI sample. Amin and Al-Bassusi's (2004) and El-Kholy's (2000) work hints at the ways in which marriage transactions may have important ramifications for dynamics within the resulting marriage. However, neither study is able to generalize its findings to the wider population, nor to rule out the possibility that other important factors are at work. An analysis based on national data addresses limitation of inference as well as external and internal validity. In this section I first describe the survey data to be used in this study along with its advantages and disadvantages, followed by the key measures to be used in the analysis.

### *The ELMPS Data and Analysis Sample*

The primary data source for this study is the 2006 Egypt Labor Market Panel Survey (ELMPS). The ELMPS is the second wave of a national survey first fielded in 1998. The 1998 wave of the survey interviewed the members of 4,816 households and was based on a two-stage stratified random sample. The 2006 wave re-interviewed 3,684 households from the original sample, as well as 2,167 households that had split from the original households. Of the respondents from the first wave of the survey, 72.4% were successfully re-interviewed in the second wave (a total of 17,357 individuals).<sup>11</sup> A refresher sample was also drawn. In all 37,000 individuals aged six and older were interviewed in 2006 (Barsoum 2007).

The analysis sample for this study consists of female respondents who were unmarried at the first interview and married by the second interview, a total of 1,110 women. The panel design allows me to evaluate how single

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10 For accounts dealing with marriage transactions in other societies of the Middle East, see Papps (1984), Habibi (1997), and Moors (2003).

11 Death, relocation abroad, refusal to participate, and inability to locate individuals who left the original households explain about 45% of the attrition (Assaad 2007). The remaining attrition is due to the random loss of records from the first wave of the survey. There were no systematic differences between the probability of attrition and individual characteristics in 1998 (Barsoum 2007).



women's type of labor market engagement and earnings influence their subsequent marriage payments and status within marriage.

### *Dependent Variables*

The key dependent variable in my test of the *labor-value* perspective is the material contributions of the bride to the overall expenses associated with her marriage.<sup>12</sup> The ELMPS's battery of questions on marriage costs asks women about the relative and absolute value<sup>13</sup> of expenditures on each of several important items of the marriage fund. For example, it asks what the value of the furniture for marriage was, followed by a question on the percentage contribution to the cost of the furniture by the groom, the groom's family, the bride and the bride's family. Similar questions are asked for items such as jewelry for the bride, housing, celebrations, etc. For the *labor-value* hypothesis, interest is in the marriage payments made by the bride, which on average constituted only 2.14% of the overall marriage costs. I operationalize this as three variables. Because of the theoretical interest in relative and absolute marriage payments, I use measures of the bride's share of the total marriage expenses (in percentage points) and of the bride's own Egyptian pound payments (in hundreds of Egyptian pounds, standardized to 2006 values). Because the majority (89%) of brides reported making no contributions themselves to marriage costs, I also constructed a binary measure indicating whether or not the respondent herself made any payments towards her marriage expenses.

There are obvious disadvantages to relying on retrospective reports for information on marriage expenditures. Problems of recall, however, should be minimal since the respondents in question will all have married within the previous eight years. Moreover, marriage is a significant life event and many women will have documented these exchanges in a marriage inventory (*ayma*).

The most important outcome for testing the *modernization* and *bargaining* perspectives has to do with women's status. Many Egyptian survey questionnaires focus on the constructs of "autonomy" and "empowerment." However, detachment and independence from others

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12 The labor value hypothesis predicts that women's work and earnings before marriage will be negatively associated with their contributions to marriage costs.

13 There are important conceptual implications to the choice of marriage payments measure, according to the literature on women's resources. In a study using data on housework in the US, Gupta (2007) recently argued that women's absolute earnings are more important to the domestic division of labor than their relative earnings. This breaks with a long line of research that used women's economic resources as determinants of power dynamics within marriage, and that relied on measures of women's income relative to men's to do so (see for example Brines 1994; Bittman et al 2003).

are attributes few Egyptian women value (Govindasamy and Malhotra 1996) and research relating to these specific constructs is lacking. The ethnographic record suggests some things might be important to most women – the ability to make decisions which are consequential for their households, and freedom from physical abuse (Singerman 1995; Hoodfar 1997). Unfortunately the ELMPS does not provide information about domestic violence. However, it does contain detailed information about women’s decision-making. A battery of questions ask ever-married women who in their family usually has the final say in a number of decisions such as making large household purchases, visits to family and friends, getting medical treatment for a child, etc. The response categories include the respondent alone; the respondent and her husband jointly; the husband alone; the in-laws alone; the respondent, husband and in-laws jointly; and others. Exploratory factor analysis using the Principal-Components method confirmed that variables related to women’s decision-making loaded onto a single factor. For simplicity, I aggregated the variables for this factor into an additive index, with a lower score indicating less decision-making power, and a greater score indicating more.<sup>14</sup>

### *Independent Variables*

A number of predictors having to do with women’s employment are used in this analysis to test the *labor-value* and *modernization* hypotheses. My preliminary analyses tested a binary measure of whether or not members of the analysis sample were employed in 1998 (according to an extended definition of work) as an indicator of employment before marriage. But because women’s work experiences are extremely diverse, it makes little sense to lump all types of work together into a single category when testing the statistical effect of work on marriage payments or decision-making. While many Egyptian working women are waged employees, the majority of Egyptian women who are economically active work as unpaid family workers or are engaged in subsistence activities (Langsten and Salem 2008). I therefore created three dummy variables for type of labor market engagement indicating whether respondents were wage workers, unpaid workers, or not working at all. These measures of type of labor market engagement were constructed for 1998, before the respondent married, as well as for 2006, after the respondent married. The second labor market measure used in this analysis is each woman’s monthly wage. This measure

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14 I assigned three points to women who reported that they alone take a given decision, two points to those who take the decision jointly with the husband, one point to those who take the decision jointly with the husband and in-laws, and zero points to all others. The decision-making score ranges from 0 to 30.

was constructed for both 1998 and 2006 and is measured in hundreds of Egyptian pounds (standardized to 2006 values), with those who were not working assigned a wage of 0 pounds.

The predictor variable of interest for the *bargaining* hypothesis is women's contribution to marriage expenses. As noted above, I use these items to construct three measures of women's marriage payments. The first is a measure of the percentage contribution of the bride herself to total marriage costs. The second is a binary measure of whether or not she made any payments towards her total marriage costs. The third is a measure of the total payments (in hundreds of Egyptian pounds) made towards covering the costs of marriage, for those who made any payments.

I also use a number of measures of the demographic characteristics of wives as control variables. The respondent's age at marriage is included in the models that follow because the older the woman was at marriage, the greater her marriage contributions are likely to be, and the greater her decision-making power in 2006 is likely to be.

The years of education completed by the respondent by 2006 is another important control variable. The relationship between years of education and marriage payments is ambiguous because more education might translate into less time in the labor market before marriage, or it might result in greater earnings at work. The wife's years of education, however, should be positively associated with her decision-making power. I also include a dummy variable for whether the respondent was a student in 1998, to control for those who may not have had the opportunity to work in 1998.

Rural residence is also included as a control variable. Rural residence before marriage should lead to lower marriage payments by the bride and should also diminish her decision-making score.

The key measure of socioeconomic status in the ELMPS is wealth, as measured by a list of household assets. The bride's household's asset ownership in 1998 is available as an index ranging from -2.04 to 1.87, and should be associated with greater marriage payments on the part of the bride and greater decision-making for her after marriage.

Kin marriage is relatively common in Egypt and in fact is an idealized form of marriage for some. I include a dummy variable indicating whether or not the respondent's husband is a relative in the models that follow. In kin marriages, marriage payments are often reduced as a sign of good will between members of the same family. The association between kin marriage and decision-making is less clear, because although kin marriage is thought to be advantageous for the wife, it is more common in rural areas, where the wife's decision-making power is lower.

About 25% of the analysis sample reported that they lived in an extended family arrangement when they first married. Because marriage costs are reduced considerably for those who do not set up their own households, I include a dummy for nuclear living at first marriage in my regression models. Women who lived with their husbands as a nuclear family at the start of their marriage are likely to have paid more than others towards marriage expenses, but their proportional contribution is likely to have been lower because of the high cost of housing, which is borne by the husband. Wives who lived independently, however, are likely to have greater decision-making power compared to those who lived as part of an extended family.

Finally, I include two other variables which I expect to influence women’s status in my tests of the *modernization* and *bargaining* hypotheses. The first of these is a binary measure of whether the woman has any sons. There is a strong preference for male children in Egypt, and women can expect their status to be enhanced if they bear a son. The second variable is a measure of whether the respondent reports owning any property which she could sell if she wished. Women who own any property can use this as a bargaining chip, and therefore their decision-making power should be greater than women who own no property. Although the ELMPS elicits information about women’s ownership and control of property, it lacks data about its value. This may be an important omitted variable for the bargaining hypothesis, which is concerned with all of women’s economic resources, not just earnings or marriage-related cash and assets.

Table 1. Cross-Tabulation of Dependent Variables with Selected Independent Variables (N=1,110)

	Bride's Proportional Marriage Payments (Percentage)	Bride's Absolute Marriage Payments (Mean Egyptian Pounds)	Bride's Decision- Making Index (Mean Score)	Total
Type of Labor Market Engagement, 1998				
Wage Worker	8.10%	2742 EGP	15.09	10.91%
Unpaid Worker	1.45%	586 EGP	11.43	17.86%
Not Working	1.90%	1106 EGP	13.15	71.22%
Monthly Wage, 1998				
0 EGP	1.81%	988 EGP	12.81	89.09%
1-200 EGP	6.06%	1002 EGP	15.30	4.62%
201-400 EGP	7.27%	2012 EGP	14.92	5.22%
>401 EGP	23.68%	14037 EGP	15.01	1.06%

continued ►

Type of Labor Market Engagement, 2006	-	-	14.34	11.94%
Wage Worker	-	-	11.06	20.02%
Unpaid Worker	-	-	13.42	68.04%
Not Working	-	-	-	-
Monthly Wage, 2006	-	-	-	-
0 EGP	-	-	12.89	88.18%
1-200 EGP	-	-	13.94	2.63%
201-400 EGP	-	-	14.74	4.82%
>401 EGP	-	-	14.01	4.37%
Years of Education	-	-	-	-
0 Years of Education	0.68%	172 EGP	10.76	15.64%
1-9 Years of Education	2.84%	954 EGP	12.69	17.61%
10-12 Years of Education	1.82%	634 EGP	13.51	39.86%
>12 Years of Education	4.30%	2798 EGP	13.95	26.89%
Student in 1998	-	-	-	-
Student	2.20%	1431 EGP	12.84	45.24%
Not a Student	2.70%	985 EGP	13.22	54.76%
Wealth in 1998	-	-	-	-
Poorest Third	1.53%	356 EGP	11.64	26.52%
Middle Third	2.18%	1104 EGP	12.75	32.05%
Richest Third	3.37%	1828 EGP	14.15	41.43%
Rural Residence in 1998	-	-	-	-
Rural	1.58%	521 EGP	11.77	47.69%
Urban	3.32%	1831 EGP	14.23	52.31%
Age at Marriage	-	-	-	-
Married Under 18	0.21%	93.28 EGP	11.30	11.93%
Married Over 18	2.80%	93.28 EGP	13.69	88.07%
Bride's Proportional Marriage Payments (%)	-	-	-	-
0%	-	-	13.35	89.30%
1%-20%	-	-	13.38	6.00%
21%-40%	-	-	15.29	3.37%
>40%	-	-	17.39	1.33%
Bride's Absolute Marriage Payments (EGP)	-	-	-	-
0 EGP	-	-	13.06	89.95%
1-5,000 EGP	-	-	13.06	3.36%
5,001-10,000 EGP	-	-	11.97	2.47%
>10,000 EGP	-	-	16.04	4.21%

continued ►

Living Arrangements when First Married	2.25%	725 EGP	9.77	25.91%
Extended Family	2.56%	1332 EGP	14.21	74.09%
Nuclear Family				
Kin Marriage				
Husband a Relative	1.32%	400 EGP	12.60	21.60%
Husband not a Relative	2.82%	1423 EGP	13.18	78.40%
Has Any Sons				
Has Any Sons	-	-	14.94	50.23%
Has No Sons	-	-	11.16	49.77%
Property Ownership				
Owns Any Property	-	-	13.46	32.99%
Own No Property	-	-	12.85	67.01%

Source: Egypt Labor Market Panel Survey, 2006

## 5. Analysis and Results

The *labor-value* perspective makes two predictions regarding the effect of women's work on their marriage payments. First, it states that the greater the remuneration of a woman's work is before marriage, the lower her proportional contributions to marriage costs will be. Compared with their husbands, their husbands' families, and their own families, female respondents in the ELMPS contributed the least to marriage expenses. This is consistent with the fact that the most expensive marriage item (housing) is borne by the husband according to custom. Because of the large number of zeros in the outcome variables measuring women's share of marriage costs, a zero-inflated negative binomial regression was used in the analysis.

The zero-inflated negative binomial model is also appropriate for regressions where the variance of the outcome variable is considerably larger than the mean. This model assumes that the sample comes from two populations, one where the count is always zero, and another where the count has a negative binomial distribution and is not always zero. Coefficients for the always zero population are estimated using logistic regression and are displayed in the top panel of the table. These coefficients are log-odds, which when exponentiated indicate the percentage increase or decrease in the odds of being in the always zero category. Coefficients for the not always zero population follow a negative binomial distribution and are displayed in the bottom panel of the table. When exponentiated,

these represent the average increase or decrease in the outcome variable for each one unit increase in the predictor variable.

The zero-inflated negative binomial regression model is not only used when the outcome of interest is bride’s percentage marriage contributions, but also when the outcome of interest is the bride’s decision-making power. The decision-making index also has an overcount of zeros and a variance that is larger than the mean, both of which are accounted for by the zero-inflated negative binomial model.

Results from the analysis of the first *labor-value* hypothesis are shown in Table 2, with examples of the correct interpretation of the zero-inflated negative binomial coefficients illustrated in the text below.

Table 2. Zero-Inflated Negative Binomial Regression Testing the Effect of Type of Labor Market Engagement and Monthly Wage on Bride’s Share of Total Marriage Costs (Labor Value Hypothesis 1) (N=1,110)

	Bride’s Share of Total Marriage Costs	
	Model 1	Model 2
Inflate Constant	6.056***	5.997***
Wage Worker in 1998	-1.123***	
Unpaid Worker in 1998	-0.096	
Years of Education	-0.080**	-0.083**
Student in 1998	-0.292	-0.140
Wealth in 1998	0.378*	0.398*
Rural Residence in 1998	0.505	0.492
Age at Marriage	-0.147***	-0.149***
Nuclear Living at Marriage	0.62	0.618
Husband a Relative	0.599	0.575
Monthly Wage in 1998		-0.448*
Constant	3.455***	3.423***
Wage Worker in 1998	0.226	
Unpaid Worker in 1998	-0.007	
Years of Education	-0.025	-0.024
Student in 1998	0.183	0.127
Wealth in 1998	0.192*	0.185*
Rural Residence in 1998	-0.032	-0.055
Age at Marriage	0.002	0.005

continued ►

Nuclear Living at Marriage	-0.218	-0.200
Husband a Relative	-0.107	-0.104
Monthly Wage in 1998		0.061

Notes: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Omitted category for the type of labor market engagement is 'not working.' Metric for monthly wage in 1998 is hundreds of Egyptian Pounds.

SOURCE: Egypt Labor Market Panel Survey, 2006

Contrary to the *labor-value* hypothesis, Table 2 shows that brides employed as wage workers before marriage made higher percentage contributions to marriage costs compared to brides who were not working before marriage. Wage workers were 67.5% ( $\exp(-1.123) = 0.325$ ) less likely than non-workers to have made no contributions to the marriage fund (a result which is statistically significant), and on average contributed 25.4% ( $\exp(0.226) = 1.254$ ) more to marriage costs than non-workers (a result which is not statistically significant). Having worked as an unpaid worker bears no statistical association with proportional marriage contributions, compared to not working. The results displayed in the Model 2 of Table 2 indicate that as the bride's monthly wage in 1998 increased, her odds of contributing nothing to the marriage fund significantly diminished, contrary to the *labor-value* hypothesis. Other noteworthy findings include the fact that the greater the years of education and age at marriage of the bride, the lower her odds of having contributed nothing to the marriage fund are. Not surprisingly, the wealth of the bride's natal family is positively associated with higher average marriage contributions on her part.

Second, the *labor-value* hypothesis states that the greater the remuneration of women's work is before marriage, the lower the absolute value of their marriage payments will be. Women's reported marriage payments ranged from zero Egyptian Pounds to approximately 90,000 Egyptian Pounds, but because so many respondents made no marriage payments themselves, I use a logistic regression where the outcome variable is a binary measure of whether or not the respondent made any marriage payments. Results are displayed in Table 3 as odds-ratios.



Table 3. Logistic Regression Testing the Effect of Type of Labor Market Engagement and Monthly Wage on Whether the Bride Made Any Marriage Payments (Labor Value Hypothesis 2) (N=1,110)

	Bride Made Any Payments	
	Model 1	Model 2
Constant	0.008***	0.009***
Wage Worker in 1998	2.870**	
Unpaid Worker in 1998	1.391	
Years of Education	1.077*	1.080*
Student in 1998	1.515	1.208
Wealth in 1998	0.781	0.767
Rural Residence in 1998	0.448*	0.463*
Age at Marriage	1.113**	1.118**
Nuclear Living at Marriage	0.397*	0.395*
Husband a Relative	0.602	0.611
Monthly Wage in 1998		1.366

Notes: \* p<.05, \*\*p<.01, \*\*\*p<.001. Coefficients are odds-ratios. Omitted category for the type of labor market engagement is 'not working.' Metric for monthly wage in 1998 is hundreds of Egyptian Pounds.

Source: Egypt Labor Market Panel Survey, 2006

Table 3 shows that brides who were employed as wage workers in 1998 were more likely to make payments greater than zero towards their marriage expenses compared to brides who were not working in 1998. This runs counter to the *labor-value* hypothesis. Compared to not working, being an unpaid worker in 1998 has no statistical association with making any marriage payments. The second predictor of any marriage payments in Table 3 shows a similar result in Model 2. Greater monthly wages in 1998 are not significantly associated with any marriage payments having been made by the bride. Again, increasing years of education and age at first marriage raise the odds that the bride made any marriage payments, while rural residence and nuclear living at first marriage reduce the odds that the bride made any marriage payments compared to those who were urban residents and living in extended families.

Table 4 displays regression results for the tests of the *modernization* hypothesis. Several predictions follow from the *modernization* perspective. First, greater remuneration in women's work *before* marriage should be positively associated with their decision-making power after marriage. Second, greater remuneration in women's type of labor market engagement and higher earnings *after* marriage should be beneficial for women's

decision-making power. Since the decision-making index is a score (ranging from 0 to 30) with an excess of zeros and a variance considerably larger than the mean, the analysis again relies on a zero-inflated negative binomial regression.

Table 4. Zero-Inflated Negative Binomial Regression Testing the Effect of Type of Labor Market Engagement Before and After Marriage on Wife’s Decision-Making Power (Modernization Hypothesis 1 and 2) (N=1,110)

	Decision-Making Index	
	Model 1	Model 2
Inflate Constant	-1.05	-0.881
Wage Worker in 1998	-0.365	
Unpaid Worker in 1998	-0.02	
Wage Worker in 2006	0.055	
Unpaid Worker in 2006	0.193	
Years of Education	0.005	-0.019
Student in 1998	0.055	0.242
Wealth in 2006	0.048	0.091
Rural Residence in 2006	0.198	0.223
Age at Marriage	-0.026	-0.031
Nuclear Living at Marriage	-1.185***	-1.132***
Husband a Relative	-0.061	-0.009
Has Any Sons	-1.032***	-0.985***
Owns Property	-0.094	-0.189
Monthly Wage in 1998		-0.1
Monthly Wage in 2006		0.087***
Constant	2.419***	2.374***
Wage Worker in 1998	0.059	
Unpaid Worker in 1998	-0.088*	
Wage Worker in 2006	-0.007	
Unpaid Worker in 2006	-0.065	
Years of Education	0.011*	0.013***
Student in 1998	-0.05	-0.05
Wealth in 2006	-0.014	-0.015
Rural Residence in 2006	-0.068*	-0.093***

continued ►

Age at Marriage	0.001	0.002
Nuclear Living at Marriage	0.097*	0.101*
Husband a Relative	0.019	0.013
Has Any Sons	0.176***	0.175***
Owens Property	0.018	0.014
Monthly Wage in 1998		0.029*
Monthly Wage in 2006		-0.006

Notes: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Omitted category for the type of labor market engagement is 'not working.' Metric for monthly wage in 1998 and 2006 is hundreds of Egyptian Pounds.

Source: Egypt Labor Market Panel Survey, 2006

The results in Table 4 show that women's wage work in 1998 is not associated with greater decision-making power after marriage, compared to women who were not working in 1998, as the *modernization* perspective would predict. However, among brides whose decision-making score was not always zero, being engaged in unpaid work before marriage is associated with significantly lower decision-making power than that of those who were not working before marriage. Surprisingly, women who report working currently are no different in their decision-making scores from those who do not work at present, again refuting the *modernization* hypothesis. Model 2 of Table 4 indicates that the higher the bride's wages were before marriage, the lower her odds are of always having a decision-making score of zero (although this is not statistically significant), and the higher her average decision-making score is after marriage (a finding that is significant at the .05 level). Other noteworthy findings include the fact that women with greater years of education, those who lived as a nuclear family at the start of marriage, as well as those who have a son, all have higher decision-making scores relative to other women. Women who are rural residents have reduced decision-making power compared to urban residents.

Finally, Tables 5 and 6 display regression results testing predictions made by the *bargaining* hypothesis. Here the predictors of interest are the wife's marriage payments (in both relative and absolute terms), and the outcome tested is the wife's current decision-making power. The *bargaining* perspective predicts that women's contributions to marriage costs will be positively associated with their decision-making within marriage. Because of the excess zeros in the decision-making index, a zero-inflated negative binomial model is used here.

Table 5. Zero-Inflated Negative Binomial Regression Testing the Effect of Marriage Payments on Wife's Decision-Making Power (Bargaining Hypothesis 1) (N=1,110)

	Decision-Making Index	
	Model 1	Model 2
Inflate Constant	-1.21	-0.264
Bride's Share of Total Payments	-0.035	
Years of Education	0.023	0.05
Wealth in 2006	0.08	-0.064
Rural Residence in 2006	0.42	0.287
Age at Marriage	-0.035	-0.089
Nuclear Living at Marriage	-1.094**	-1.069**
Husband a Relative	0.022	0.125
Has Any Sons	-0.964***	-0.989**
Owns Property	-0.149	-0.394
Bride Made Any Payments		0.118
Constant	2.337***	2.282***
Bride's Share of Total Payments	0.002	
Years of Education	0.010**	0.010*
Wealth in 2006	-0.012	-0.002
Rural Residence in 2006	-0.094***	-0.093**
Age at Marriage	0.004	0.005
Nuclear Living at Marriage	0.100*	0.106*
Husband a Relative	0.015	-0.002
Has Any Sons	0.182***	0.185***
Owns Property	0.015	0.017
Bride Made Any Payments		0.024

Notes: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Bride's share of total marriage payments is measured in percentage points.

Source: Egypt Labor Market Panel Survey, 2006

The first column of Table 5 shows that, contrary to the *bargaining* hypothesis, the bride's proportional contribution to marriage costs carries no statistically significant benefits for her decision-making power after marriage. Likewise, brides who made any payments are no different in their decision-making power from brides who made no marriage payments.

The *bargaining* hypothesis also predicts that the associations posited by the *modernization* hypothesis above (namely, that work and earnings before marriage enhance women’s decision-making power) will disappear once the wife’s contribution to the marriage fund is taken into account. But previously displayed tests of the *modernization* hypothesis showed that working before marriage is *not* significantly associated with any gains in later decision-making power for the wife. This result is shown again in Model 1 of Table 6, and in Models 2 and 3 of the same table we see the effect of adding measures of the bride’s marriage payments to the regression.

Table 6. Zero-Inflated Negative Binomial Regression Testing the Effect of Type of Labor Market Engagement on Wife’s Decision-Making Power, Controlling for Wife’s Marriage Payments (Bargaining Hypothesis 2) (N=1,110)

	Decision-Making Index		
	Model 1	Model 2	Model 3
Inflate Constant	-1.05	-1.479	-0.391
Wage Worker in 1998	-0.365	-0.52	-0.434
Unpaid Worker in 1998	-0.02	0.063	0.228
Wage Worker in 2006	0.055	0.238	0.029
Unpaid Worker in 2006	0.193	0.387	0.219
Years of Education	0.005	0.029	0.064
Student in 1998	0.055	-0.027	-0.133
Wealth in 2006	0.048	0.06	-0.094
Rural Residence in 2006	0.198	0.329	0.194
Age at Marriage	-0.026	-0.027	-0.088
Nuclear Living at Marriage	-1.185***	-1.035**	-1.023**
Husband a Relative	-0.061	0.006	0.103
Has Any Sons	-1.032***	-0.956***	-0.987**
Owns Property	-0.094	-0.208	-0.431
Bride’s Share of Total Payments		-0.037	
Bride Made Any Payments			0.103
Constant	2.419***	2.439***	2.367***
Wage Worker in 1998	0.059	0.055	0.104*
Unpaid Worker in 1998	-0.088*	-0.090*	-0.074
Wage Worker in 2006	-0.007	-0.01	-0.01
Unpaid Worker in 2006	-0.065	-0.063	-0.081

continued ►

Years of Education	0.011*	0.011*	0.008
Student in 1998	-0.05	-0.053	0
Wealth in 2006	-0.014	-0.012	-0.001
Rural Residence in 2006	-0.068*	-0.066*	-0.064*
Age at Marriage	0.001	0	0.003
Nuclear Living at Marriage	0.097*	0.097*	0.097*
Husband a Relative	0.019	0.02	0.008
Has Any Sons	0.176***	0.175***	0.183***
Owns Property	0.018	0.022	0.026
Bride's Share of Total Payments		0.001	
Bride Made Any Payments			0.013

Notes: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Omitted category for the type of labor market engagement is 'not working.' Bride's share of total marriage payments is measured in percentage points.

Source: Egypt Labor Market Panel Survey, 2006

We see from Models 2 and 3 of Table 6 that marriage payments *do not* mediate the effect of the wife's prior work on her decision-making. When measures of the bride's contribution to marriage costs are included in the regression, the sign of the association between type of work and decision-making remains unchanged, thus refuting the *bargaining* hypothesis. The exception to this is the negative association between decision-making and having been an unpaid worker in 1998, compared to having been a non-worker 1998. Although the inverse relationship remains, the coefficient for unpaid worker becomes insignificant once the possibility that the bride made any marriage payments is controlled for.

Table 7. Zero-Inflated Negative Binomial Regression Testing the Effect of Earnings on Wife's Decision-Making Power, Controlling for Wife's Marriage Payments (Bargaining Hypothesis 2) (N=1,110)

	Decision-Making Index		
	Model 1	Model 2	Model 3
Inflate Constant	-0.881	-1.198	-0.208
Monthly Wage in 1998	-0.1	-0.19	-0.122
Monthly Wage in 2006	0.087***	0.095***	-0.056
Years of Education	-0.019	0.001	0.059
Student in 1998	0.242	0.141	-0.157
Wealth in 2006	0.091	0.109	-0.072

continued ►

Rural Residence in 2006	0.223	0.39	0.265
Age at Marriage	-0.031	-0.033	-0.091
Nuclear Living at Marriage	-1.132***	-0.995**	-1.067**
Husband a Relative	-0.009	0.08	0.123
Has Any Sons	-0.985***	-0.899**	-0.989**
Owns Property	-0.189	-0.27	-0.388
Bride's Share of Total Payments		-0.034	
Bride Made Any Payments			0.145
Constant	2.374***	2.394***	2.312***
Monthly Wage in 1998	0.029*	0.027	0.036
Monthly Wage in 2006	-0.006	-0.007	-0.005
Years of Education	0.013***	0.013**	0.011*
Student in 1998	-0.05	-0.052	-0.007
Wealth in 2006	-0.015	-0.014	-0.003
Rural Residence in 2006	-0.093***	-0.091***	-0.091**
Age at Marriage	0.002	0.001	0.004
Nuclear Living at Marriage	0.101*	0.101*	0.107*
Husband a Relative	0.013	0.013	-0.002
Has Any Sons	0.175***	0.174***	0.181***
Owns Property	0.014	0.018	0.016
Bride's Share of Total Payments		0.001	
Bride Made Any Payments			0.014

Notes: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . Metric for monthly wage in 1998 and 2006 is hundreds of Egyptian Pounds. Bride's share of total marriage payments is measured in percentage points.

Source: Egypt Labor Market Panel Survey, 2006

Table 7 tests whether the statistical effect of the bride's earnings before marriage on her later decision-making power is actually due to the marriage payments she was able to make because of her earnings. We see from Model 1 of Table 7 that the greater the earnings of the bride before marriage were, the higher her average decision-making score is after marriage. However, when measures of the bride's contribution to marriage expenditures are controlled for, this finding is reduced to non-significance. This suggests that the positive consequences of high wages before marriage are due in part to the fact that those high wages allowed the bride to make purchases for her marriage, lending some support to the *bargaining* hypothesis.

## 6. Conclusions

The findings reported in the previous section are synthesized according to each of the three conceptual frameworks and their corresponding hypotheses in Table 8. Table 8 shows that the relationship observed in the ELMPS data between women's labor force participation, marriage payments, and women's decision-making within marriage largely corroborates the paradoxes identified by earlier studies.

Table 8. Summary of Findings for Hypotheses Generated by the Three Conceptual Frames

Conceptual Framework	Predictor Variable	Hypothesized Relationship With Outcome Variable	Hypothesis according to ELMPS
Labor-Value H1	Bride worked in 1998	Negative association with her proportional contribution to marriage costs	Not supported
	Bride's wage in 1998		Not supported
Labor-Value H2	Bride worked in 1998	Negative association with her total marriage payments	Not Supported
	Bride's wage in 1998		Not supported
Modernization H1	Bride worked in 1998	Positive association with current decision-making power	Not Supported
	Bride's wage in 1998		Supported
Modernization H2	Bride worked in 2006	Positive association with current decision-making power	Not Supported
	Bride's wage in 2006		Not Supported
Bargaining H1	Bride's proportional marriage payments	Positive association with current decision-making power	Not Supported
	Bride's absolute marriage payments		Not Supported
Bargaining H2a	Bride's proportional marriage payments	Positive association between bride's work in 1998 and decision-making will disappear	Not Applicable
	Bride's absolute marriage payments		Not Applicable

continued ►



Bargaining H2b	Bride's proportional marriage payments	Positive association between bride's wages in 1998 and decision-making will disappear	Supported
	Bride's absolute marriage payments		Supported

With regards to the *labor-value* perspective, all four regressions yielded results that run counter to this perspective's prediction that women's work will reduce their proportional and absolute contributions to the costs of marriage. Instead my results suggest that brides employed as wage workers before marriage made greater contributions to marriage costs relative to brides who were not working before marriage. Singerman and Ibrahim (2003) asserted that brides were shouldering a greater share of marriage expenses over time. While they expressed puzzlement that this had accompanied a rising trend in female labor force participation, they were unable to test a direct association between women's work and their contributions to the marriage fund. The analysis presented here refutes the *labor-value* hypothesis and thus confirms the *labor-value* paradox: brides who reported working and receiving a wage before marriage were more likely to contribute to marriage expenses compared to other brides.

The ELMPS data were also used to investigate whether the economic resources women bring to their marriages, be they in the form of marriage payments or work they performed in the labor market, improve their status and power vis a vis their husbands. The *modernization* perspective would predict that work and earnings before and after marriage should enhance married women's decision-making power. However, the associations between wage work and decision-making were not statistically significant. Having been an unpaid worker before marriage was actually found to significantly *reduce* decision-making power after marriage. While current earnings were not associated with decision-making, earnings in 1998 were positively associated with decision-making, the only finding that supports the *modernization* hypothesis. The *modernization* perspective's prediction that women's work and wages should come hand in hand with greater power vis a vis husbands largely does not hold in the ELMPS data, confirming the paradox identified in earlier studies. The *modernization* perspective's prediction that greater education for women should translate into higher status is, on the other hand, supported.

When the *bargaining* model is tested using women's decision-making as an indicator of their status, findings only partially support the hypotheses posited at the outset of this paper. No association was found between

the bride's marriage payments and her decision-making power within marriage. This paper's tests of the *bargaining* hypothesis also sought to answer the question posed in the title of this paper, namely whether married women's well-being depended on their work and wages or on their marriage payments. The answer to this question is mixed. Surprisingly, women's decision-making is not affected by their type of labor market engagement either before or after marriage, and it is more strongly influenced by wages *before* marriage than current wages. However, the positive effect of wages on decision-making is not independent of any marriage payments the bride might have made with her earnings. In other words, married Egyptian women gain advantages from having high wages before marriage. However, this advantage is due to the contributions to marriage costs that their earnings allowed them to make.

How can we understand the unexpected finding that marriage payments do not conclusively enhance married women's status by serving as a bargaining chip vis a vis their husbands? The results reported here could be due to the narrow measures of women's status employed in this study, but they may also be attributable to other factors. One possibility could be that gender trumps money. A number of studies of the effect of women's economic resources on the household division of labor in the United States show that economic resources are not enough to overcome long-entrenched norms of greater female involvement in housework (Brines 1994; Bittman et al 2003). In Egypt as in the United States, being a woman is still a better predictor of one's place in the marital power balance than one's economic resources. If anything, my findings suggest that women who do secure more decision-making power do so through the gendered institution of the family. Marrying into a nuclear family setup and having a son are the factors most strongly associated with greater power for the wife. In other words, success in the patriarchal order leads to non-patriarchal outcomes.

Another explanation could lie with the socio-legal context in Egypt. In other words, the social and legal regulation of marriage and divorce in Egypt may hinder the *bargaining* hypothesis from operating in the same manner as it does in the settings in which it has previously been studied.

The *bargaining* hypothesis' predictions regarding the effect of women's earnings and marriage assets on their well-being hinges on women's perceived ability to retain economic resources in the event of marital conflict. If El-Kholy's findings (2000) are unique to the community she studied, and women are unable to lay claim to marriage items they acquired at marriage, the arguments of the bargaining hypothesis will not hold.

Customs govern what marriage fund items come to be considered the wife's property in Egypt.<sup>15</sup> Islamic law stipulates that the *mahr* and jewelry are the property of wives, which must be returned upon divorce, while Egyptian family law often awards furniture and other household items to women in the event of a divorce. To what extent do such formal rules map onto practice when it comes to actual cases of marital dissolution? In a study of 368 judicial divorce cases handled by the new Family Court, Al Hennawy (2009) reports that 88% of all the women surveyed reported that they gave up their rights to their marital property. Interviews that I conducted with a number of lawyers who have represented women in divorce proceedings on a pro bono basis confirmed that divorcing women rarely obtain the furniture and other household items they received at marriage. Although courts recognize the *ayma* as evidence, it is Criminal Courts rather than Family Courts which deal with the return of the marital property listed in the *ayma*. This means that women undergoing divorce who wish to claim items of furniture they purchased or were given at the time of marriage must initiate separate proceedings in Criminal courts in order to do so. Legal activists whom I interviewed, along with Al-Sharmani (2009) and Bernard-Maugiron (2008) report that many women resort to *khul'* divorce, in which women give up all their financial rights, in order to forgo the lengthy proceedings and uncertain outcomes of ordinary divorce. This means that a much greater proportion of divorcing women end up with few of the items which are legally their own property. Together these findings suggest that items of the *gihaz* that are customarily considered to be the bride's property cannot operate as a means of leverage for the wife, since in practice she cannot expect to retrieve these items from her husband in case of divorce. This may explain why the bargaining hypothesis finds only weak support in this study.

This discussion of the socio-legal context in Egypt brings me to my final point. Bargaining theory presupposes certain institutional conditions, conditions which are crucial if its predictions are to hold. In the United States, where bargaining theory has been tested most extensively, these conditions include an abundance of cheap housing, religious pluralism, and legal changes which have improved women's property entitlements.

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15 Zelizer (1996, 2005) makes an interesting distinction between payments that are entitlements, gifts, or compensation. If a good given by a groom to a bride at the time a marriage is contracted is understood to be a gift, it may or may not be considered appropriate that she sell it later on, but there would be no expectation that it be returned to him should the marriage fail. The *mahr* is often referred to as an entitlement due to women in Egypt, and jewelry as a gift. But these categorizations are often blurred, and they shift according to social context, making it difficult to predict how such understandings affect women's control over assets received at marriage.

Egypt, in contrast, is characterized by expensive housing, leaving women who wish to leave their husbands little choice other than moving in with their parents. Religious conservatism is also on the rise in Egypt, creating a normative environment in which divorce is frowned upon. And while legal protections for women are on the books, they are not enforced properly. Therefore it appears that theories that have predicted greater power for women as their access to economic resources and labor market opportunities increased, have limited utility for societies which lack the abovementioned institutional conditions.

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